

# Drainage Solutions

There are many ways to reduce drainage problems on your property. The goal is to divert stormwater away from your foundation and other sensitive areas on your property. You won't need all of the items below, but installing several of them can make a big difference.

**1) Foundation drains** divert stormwater away from your building's foundation. Foundation drainpipes are perforated and usually surrounded by gravel. The pipes disperse the water (instead of discharging in a concentrated area) and the gravel contributes to infiltration of the water. The gravel can be wrapped with a layer of filter fabric to prevent the drain from clogging with sediment.

**2) Roof drainpipes** are not perforated, and are not connected to the foundation drain system. They should be connected to convey water to the City's storm drain system, to a drywell, or directly to a waterbody.

**3) Gutters** collect runoff from a building's roof. This runoff is conveyed through downspouts to the roof drain system. Gutters should be kept clear of leaves and other debris so clogging does not occur in the roof drain system.

**4) Storm drainpipes** convey rainwater to the City's stormwater system. Storm drainpipes can be made from many different materials such as concrete, aluminum, and polyvinyl chloride (PVC); and can last up to 100 years.

**5) Catch basins** are connected to storm drainpipes. They are concrete structures (either round or rectangular) with metal grates on top. Catch basins capture debris that could clog the pipes in a storm drain system. You can help the system by checking the catch basins in your neighborhood after a heavy storm. Use a broom or rake to remove any leaves or debris that have blocked the catch basin's grate.

**6) Yard inlets** are connected to storm drainpipes, but are much smaller than catch basins. Metal and plastic yard inlets can be purchased at a local hardware store, or they can be made of concrete.

**7) Trench drains** are used to capture stormwater flowing over a larger area like a driveway. Trench drains convey rainwater to the City's storm drain system.

**8) French drains** can be installed anywhere on your property that collects water. French drains are constructed with a perforated pipe. Gravel and filter fabric surrounds the pipe, similar to foundation drain systems.

**9) Drywells** can be installed in areas that cannot be connected to a stormwater drainage system. Drywells are filled with gravel and surrounded by filter fabric. Water flows into the wells and infiltrates into the ground through the gravel.

**10) Cleanouts** are designed as easy access points for maintenance of the stormwater drainage system. They are usually located in a bend where debris can clog the system.

**11) Sump pumps** (not shown in this diagram) are intended to be used as a backup system, and need electricity to function. When the sump fills with water, the pump turns on.

The contour of the land around your home can contribute to drainage problems. If possible, gradually slope the ground (5 to 10 feet around your home) away from the foundation. If the land slopes toward your home, consider installing a drainage system to direct flow around and away from your foundation.

**Swales** (ditches with vegetation and a wide bottom) can be installed to redirect water away from the building and into a french drain or other area that will allow infiltration.

